



# NC DAQ's analysis of EPA's proposed repeal of GHG Vehicle Emission Standards

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*Department of Environmental Quality*



**ICYMI: EPA Launches the Largest Deregulatory Actions in U.S. History with Proposal to Rescind Obama-Era Endangerment Finding**

The EPA proposes gutting its greenhouse gas rules. Here's what it means for cars and pollution

**EPA moves to end climate regulation under Clean Air Act**

**Pulling the Critical Block: EPA's Repeal of the Endangerment Finding Could Topple Climate Rules**

# Background on the 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

- **Section 202 of the Clean Air Act**
- **Endangerment Finding**
- **Cause and Contribute**
  
- **Light- and Medium-duty vehicle standards**
- **Heavy-duty vehicle standards**

# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

## EPA's Proposal:

- Repeal of 2009 Endangerment Finding and GHG vehicle standards.
- Removal of GHG standards for light-, medium-, and heavy-duty vehicles.
- EPA is not revisiting vehicle emission standards for criteria and toxic air pollutants.
- EPA's proposal does not quantify the real-world impact of removing GHG vehicle standards on criteria and toxic air pollutant emissions.

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## Historical context for setting vehicle emission standards:

- EPA previously used an integrated approach to set standards for multiple pollutants
  - CO<sub>2</sub> emissions - tied to fuel consumption and vehicle fuel efficiency
  - NO<sub>x</sub>, VOC, and PM<sub>2.5</sub> emissions depend on fuel consumption and emission control systems

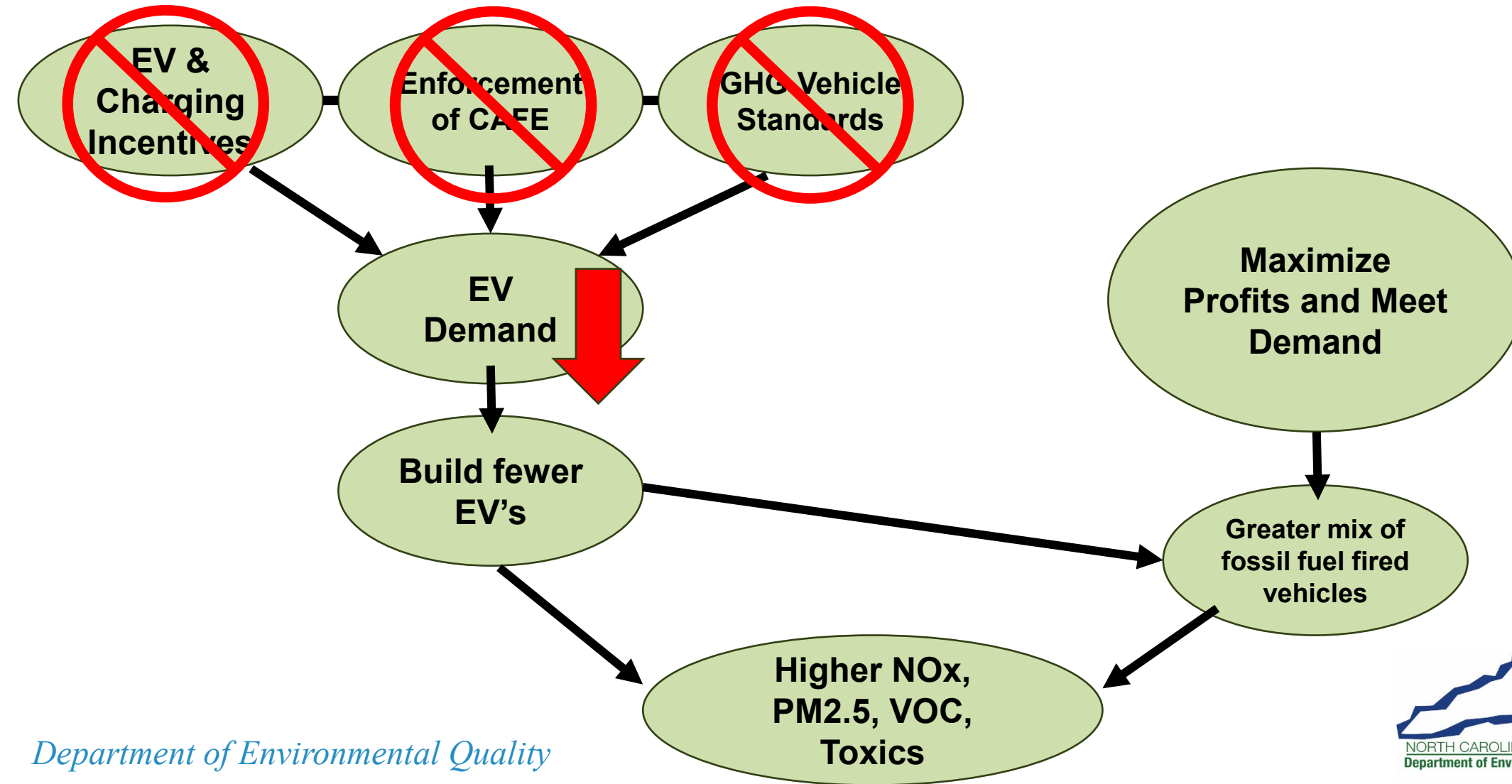
## Legislative Change – “One Big Beautiful Bill Act”:

- Reset the maximum civil penalty for CAFE noncompliance to \$0.00
- Removed NHTSA's ability to enforce CAFE standards
- How will automakers respond?

*NHTSA = National Highway Traffic Safety Administration*  
*CAFE = corporate average fuel economy*



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How might manufacturers approach this? - A hypothetical...  
For a particular model of a light duty vehicle...

## **With GHG Vehicle Emission Standards in place**

In 2027:

- 40/100 EV's
- 30/100 Hybrid gas/electric
- 30/100 gas

## **Without GHG Vehicle Emission Standards in place**

In 2027:

- 0/100 EV's
- 50/100 Hybrid gas/electric
- 50/100 gas

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## Potential Consequences:

- Eliminating GHG standards & CAFE enforcement would seem to necessarily lead to an increase in emissions of criteria and toxic air pollutants.
- This may jeopardize compliance with NAAQS.
- Could increase toxic air pollutant exposure in North Carolina.

## DAQ's request to EPA:

- Explain how EPA and NHTSA will coordinate to ensure:
  - No increase in criteria and toxic air pollutant emissions.
  - Compliance with Clean Air Act (CAA) anti-backsliding provisions, which protect foundational emission controls.

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## What are the criteria pollutant impacts of the proposal?

### EPA acknowledged in the preamble...

*“...the possibility that this proposal could marginally impact emissions of criteria pollutants and air toxics.”*

### AND... EPA does not...

*“believe that the proposed action would have a material adverse impact on the health of individuals with respect to non-GHG air pollutants, including on children, because the EPA anticipates that the impacts of repealing GHG emission regulations would have only marginal and incidental impacts on the emission of non-GHG air pollutants.”*

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## What are the criteria pollutant impacts of the proposal?

- DAQ developed estimates using EPA tools.
- Methodology:
  - MOVES5 – contains all of the current vehicle emission standards.
  - MOVES4 – excludes both of the vehicle emission standards that are proposed for repeal.
- Used only MOVES5 outputs, except for vehicle miles traveled (VMT) from EVs.

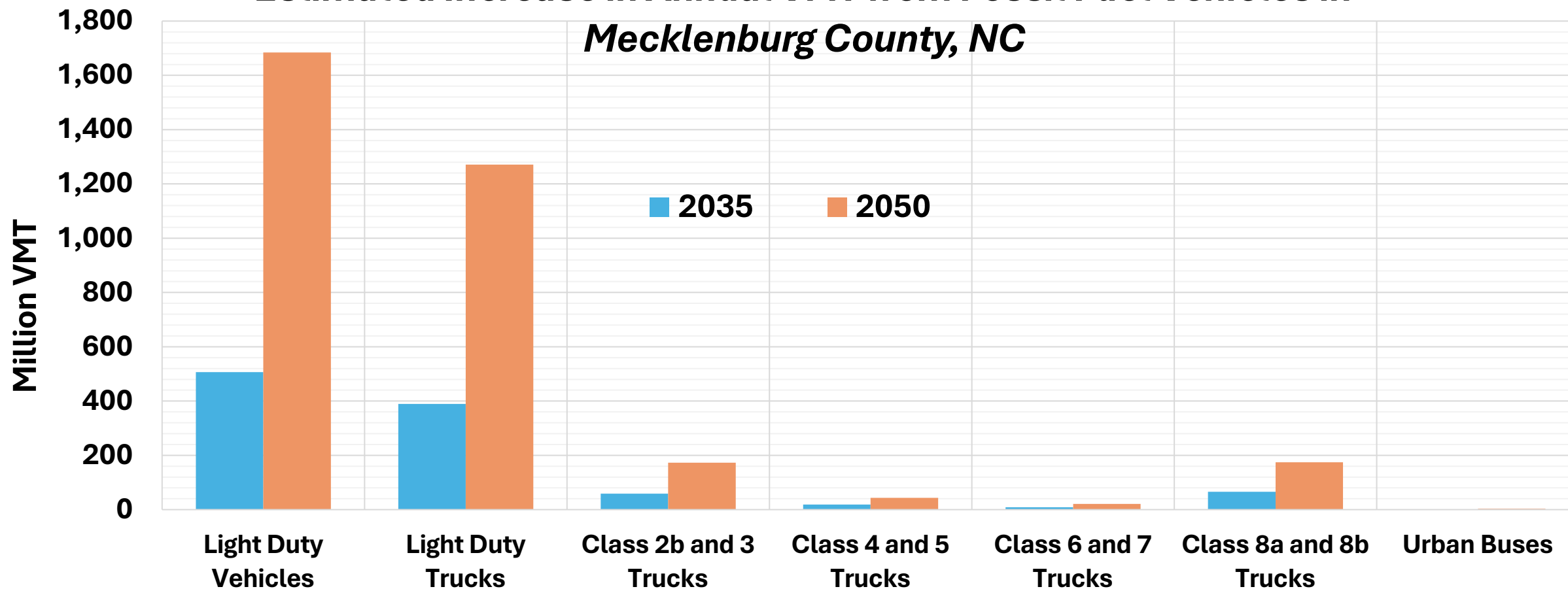
# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

## What are the criteria pollutant impacts of the proposal?

- Methodology (continued):
  - $\text{MOVES5 projected electric VMT} - \text{MOVES4 projected electric VMT} = \Delta \text{ VMT}.$
  - Multiplied the  $\Delta \text{ VMT}$  by the emission factors ( $\text{EF}_{\text{fossil}}$ ) from MOVES5 for fossil-fuel vehicles by vehicle class and year.
$$\Delta \text{ VMT} * \text{EF}_{\text{fossil}}$$
  - Projections for 2035 and 2050.
  - Mecklenburg County only.

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## *Estimated Increase in Annual VMT from Fossil Fuel Vehicles in Mecklenburg County, NC*



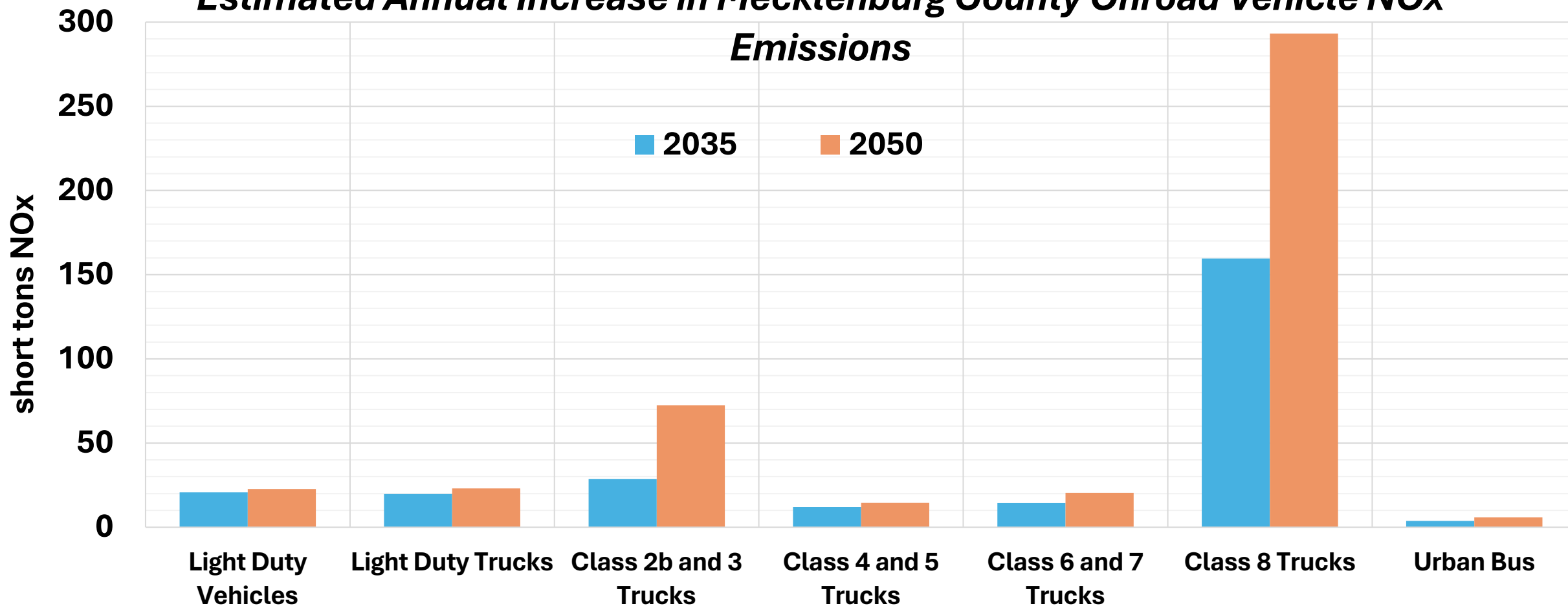
*Total increases across all vehicle classes:*

*1.05 billion VMT in 2035*

*3.37 billion VMT in 2050*

# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

***Estimated Annual Increase in Mecklenburg County Onroad Vehicle NOx  
Emissions***



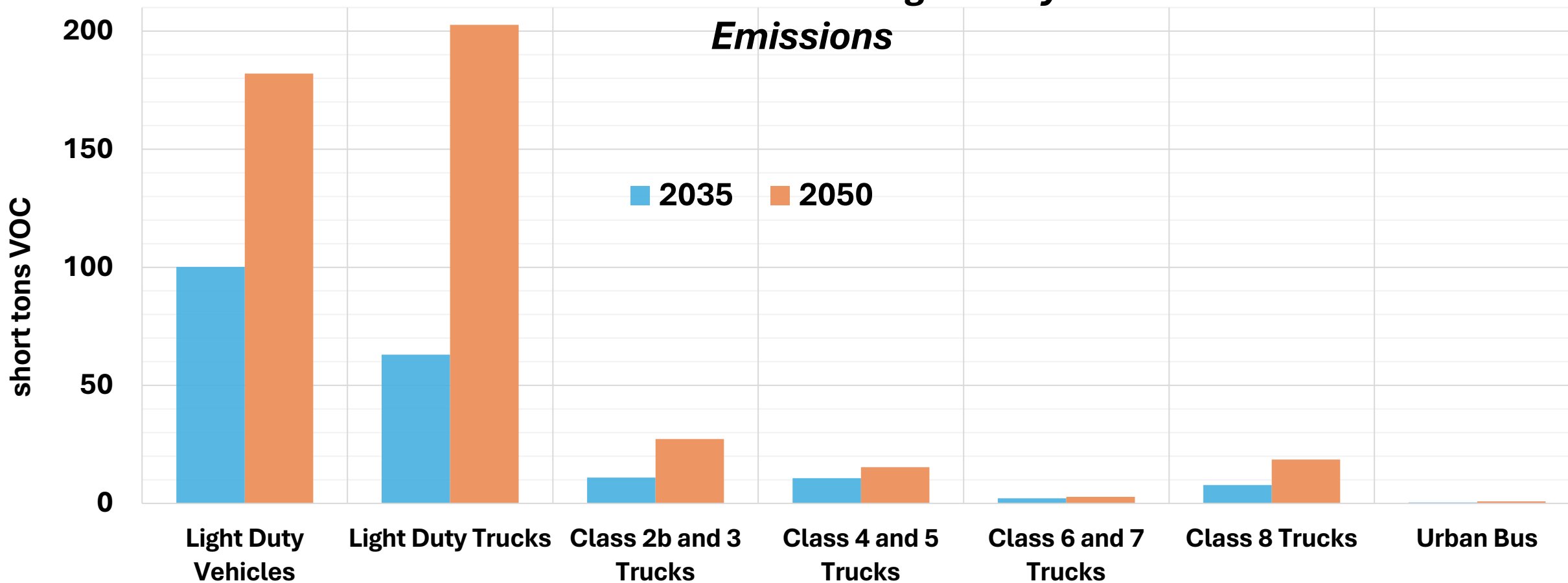
***Total increases across all vehicle classes:***

***259 tons in 2035 (11.2%)***

***452 tons in 2050 (35.0%)***

# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

***Estimated Annual Increase in Mecklenburg County Onroad Vehicle VOC  
Emissions***



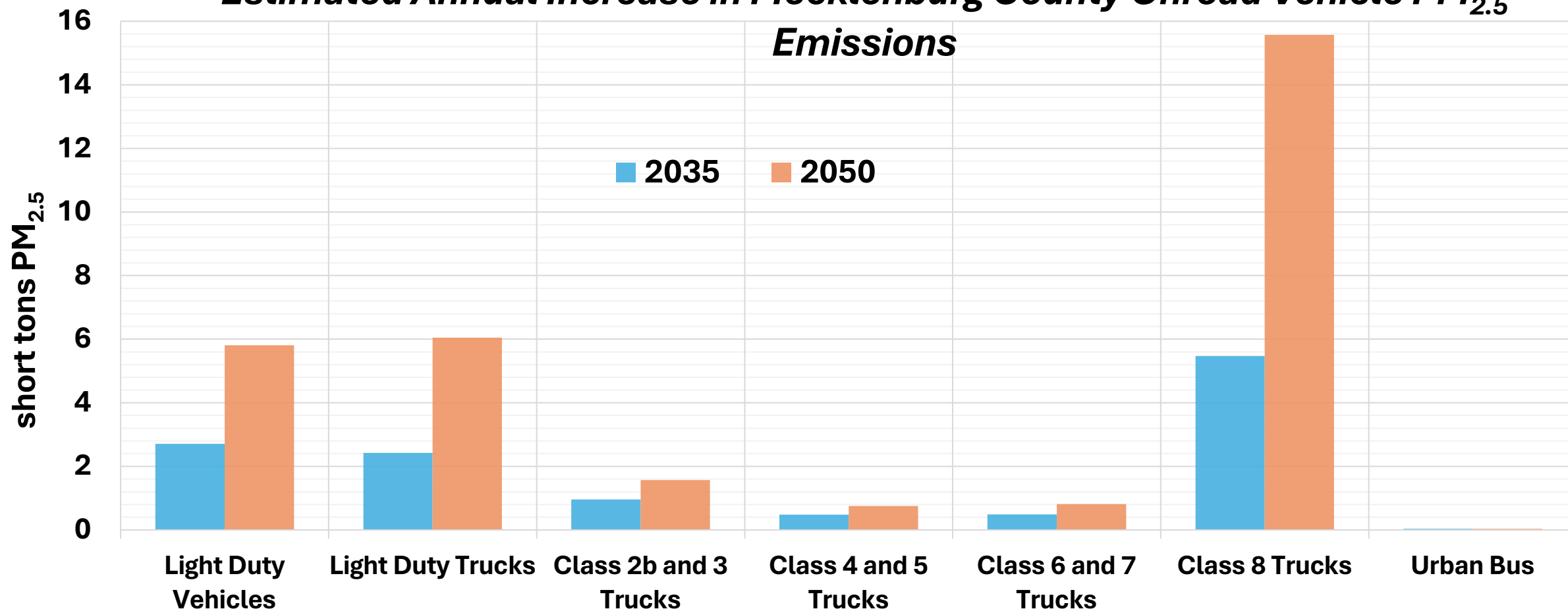
***Total increases across all vehicle classes:***

***195 tons in 2035 (8.7%)***

***450 tons in 2050 (28.3%)***

# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

***Estimated Annual Increase in Mecklenburg County Onroad Vehicle PM<sub>2.5</sub> Emissions***



***Total increases across all vehicle classes:***

***12.6 tons in 2035 (6.6%)***

***30.6 tons in 2050 (17.5%)***

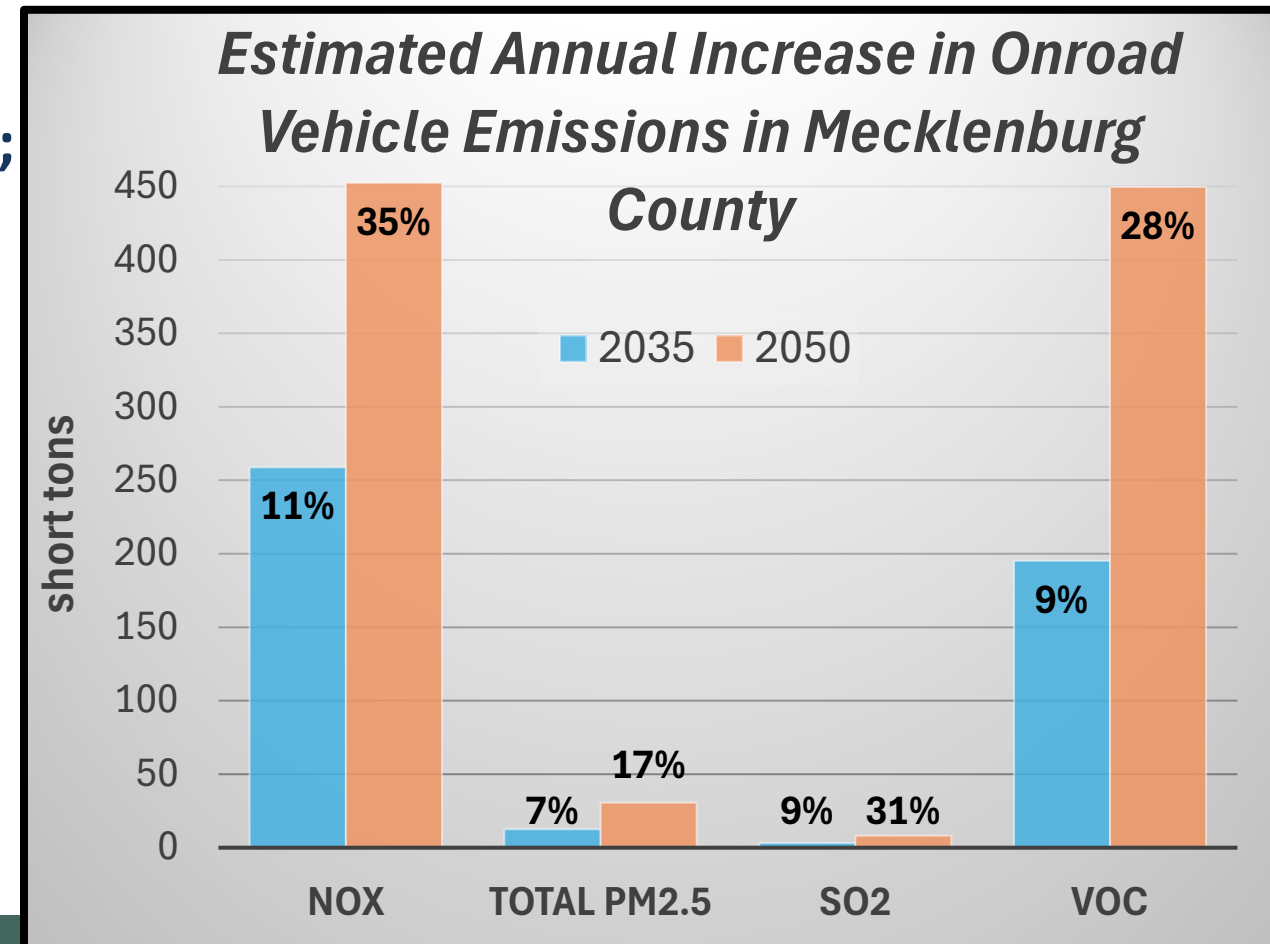
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- The NC DAQ analysis shows the EPA's proposed repeal of the GHG vehicle emission standards may increase annual onroad mobile emissions of:

- NO<sub>x</sub> by 11.2% in 2035, and 35.0% in 2050;
- PM<sub>2.5</sub> by 6.6% in 2035 and 17.5% in 2050;
- SO<sub>2</sub> by 8.7% in 2035 and 31.4% in 2050;
- VOC by 8.7% in 2035 and 28.3% in 2050;

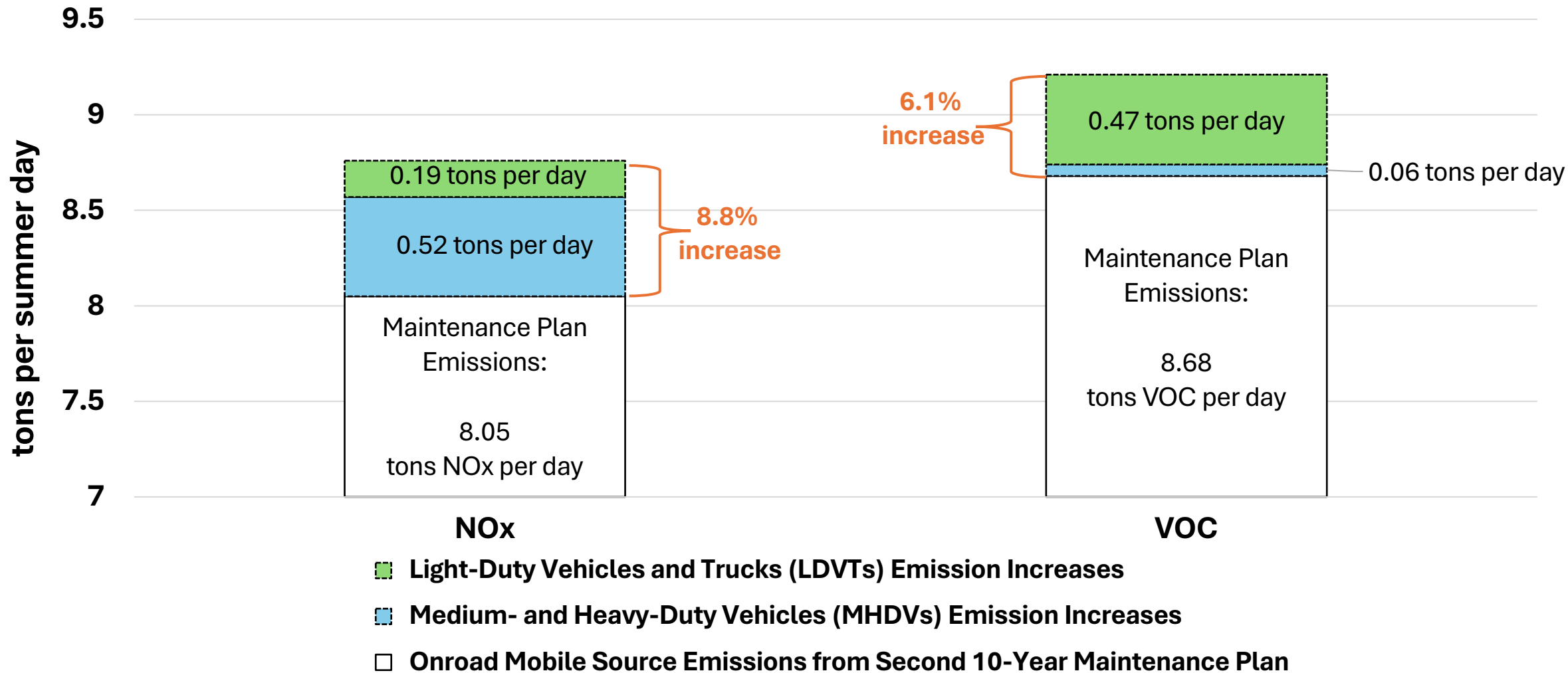
...in Mecklenburg County.

*Department of Environmental Quality*



# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

## *Mecklenburg County Emissions Increases with Respect to Maintenance Plan Emissions*



# Summary of NC DAQ's Comments on EPA's Proposed Rulemaking – Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards

## Critique of EPA's Regulatory Impact Analysis (RIA)

- Seven scenarios evaluated.
  - Contain significant shortcomings and technical pitfalls.
- Lacks air quality modeling and public health impact analysis.
- Ignores social cost of carbon and climate damages.
  - Stems from EO 14154.... Such analyses would *“result in flawed decision-making due to overreliance on balancing highly uncertain dollar figures against more concrete costs and benefits that can be appropriately quantified.”*

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## Critique of EPA's Regulatory Impact Analysis (RIA) (Scenario 1)

- EPA used the same models, tools, and assumptions as in the 2024 Vehicle Rulemakings.
- Key issue:
  - EPA appears to reverse the costs and savings.
    - Costs from 2024 rulemakings are now shown as savings.
    - Savings from 2024 rulemaking are now shown as costs.
- Fundamental flaw:
  - The proposed repeal only affects GHG standards, not criteria pollutant standards.
  - Therefore, costs to meet criteria pollutant standards will still be incurred by manufacturers.
  - These costs should not be counted as savings under the proposed repeal.

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## Final thoughts...

- EPA asserts that the proposed repeal could only have marginal impacts on public health or the environment at local or regional levels.
- EPA provides no supporting evidence to justify its claim of only marginal adverse impacts.
- NC DAQ's modeling analysis shows increases in NO<sub>x</sub>, VOC, PM<sub>2.5</sub> and SO<sub>2</sub>.
  - Especially concerning for areas with narrow margins for meeting the NAAQS.
    - Hinders the state's ability to maintain on-going compliance, mitigate climate impacts, and support economic stability and growth.
- NC DAQ requested EPA withdraw the proposed repeal and urged collaboration with states and stakeholders to implement effective strategies that protect public health and economic growth.

# Division of Air Quality - Contacts

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**Thank you: Randy Strait, Katie Quinlan, Tammy Manning,  
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